SEQUENCE LISTING

<110> GARABEDIAN, Michael
TANEJA, Samir
HITTELMAN, Adam
MARKUS, Steven

<120> METHOD FOR SCREENING TRANSCRIPTIONAL COREGULATORY PROTEINS OF TRANSCRIPTION FACTORS, AND ANDROGEN RECEPTOR TRANSCRIPTIONAL COREGULATORY PROTEINS AS TARGETS FOR ANDROGEN RECEPTOR-DEPENDENT DISEASES

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<140> NOT YET ASSIGNED
<141> 2001-03-26

<150> 60/225,618
<151> 2000-08-15

<150> 60/191,768
<151> 2000-03-24

<160> 20

<170> PatentIn version 3.0

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gaagctaagc actcggagtt atatatgcag gtggatttgg gctgtaactt cttcgttgac 240

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Arg Lys Val Leu Asp His Arg Asp Lys Val Tyr Glu Gln Leu Ala Lys

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Tyr Leu Gln Leu Arg Asn Val Ile Glu Arg Leu Gln Glu Ala Lys His
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Ser Glu Leu Tyr Met Gln Val Asp Leu Gly Cys Asn Phe Phe Val Asp
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Thr Val Val Pro Asp Thr Ser Arg Ile Tyr Val Ala Leu Gly Tyr Gly
                85                  90                  95

Phe Phe Leu Glu Leu Thr Leu Ala Glu Ala Leu Lys Phe Ile Asp Arg
            100                 105                 110

Lys Ser Ser Leu Leu Thr Glu Leu Ser Asn Ser Leu Thr Lys Asp Ser
        115                 120                 125

Met Asn Ile Lys Ala His Ile His Met Leu Leu Glu Gly Leu Arg Glu
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Ala Gly His Asp Ala Pro Arg Arg Thr Arg Pro Ser Ala Arg Lys Pro
35 40 45

Leu Ser Cys Phe Ser Arg Arg Pro Met Pro Thr Arg Glu Pro Pro Lys
50 55 60

Thr Arg Gly Ser Arg Gly His Leu His Thr His Pro Pro Gly Pro Gly
65 70 75 80

Pro Pro Leu Gln Gly Leu Ala Pro Arg Gly Leu Lys Thr Ser Ala Pro
85 90 95

Arg Pro Pro Cys Gln Pro Gln Pro Gly Pro His Lys Ala Lys Thr Lys
100 105 110

Lys Ile Val Phe Glu Asp Glu Leu Leu Ser Gln Ala Leu Leu Gly Ala
115 120 125

Lys Lys Pro Ile Gly Ala Ile Pro Lys Gly His Lys Pro Arg Pro His
130 135 140

Pro Val Pro Asp Tyr Glu Leu Lys Tyr Pro Pro Val Ser Ser Glu Arg
145 150 155 160

Glu Arg Ser Arg Tyr Val Ala Val Phe Gln Asp Gln Tyr Gly Glu Phe
165 170 175

Leu Glu Leu Gln His Glu Val Gly Cys Ala Gln Ala Lys Leu Arg Gln
180 185 190

Leu Glu Ala Leu Leu Ser Ser Leu Pro Pro Pro Gln Ser Gln Lys Glu
195 200 205

Ala Gln Val Ala Ala Arg Val Trp Arg Glu Phe Glu Met Lys Arg Met
210 215 220

Asp Pro Gly Phe Leu Asp Lys Gln Ala Arg Cys His Tyr Leu Lys Gly
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ccagycacgg cgggcacggg aggcgggcca cacacagcgg ccccgccaag gcacggcgca 420

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35 40 45

Val Ala Glu Leu Gln Ser Arg Leu Ala Ala Leu Gly Arg Gln Val Gly
50 55 60

Ala Arg Val Leu Asp Ala Leu Val Ala Arg Glu Lys Gly Ala Arg Arg
65 70 75 80

Glu Thr Lys Val Leu Gly Ala Leu Leu Phe Val Lys Gly Ala Val Trp
85 90 95

Lys Ala Leu Phe Gly Lys Glu Ala Asp Lys Leu Glu Gln Ala Asn Asp
100 105 110

Asp Ala Arg Thr Phe Tyr Ile Ile Glu Arg Glu Pro Leu Ile Asn Thr
115 120 125

Tyr Ile Ser Val Pro Lys Glu Asn Ser Thr Leu Asn Cys Ala Ser Phe
130 135 140

Thr Ala Gly Ile Val Glu Ala Val Leu Thr His Ser Gly Phe Pro Ala
145 150 155 160

Lys Val Thr Ala His Trp His Lys Gly Thr Thr Leu Met Ile Lys Phe
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Glu Glu Ala Val Ile Ala Arg Asp Arg Leu Glu Gly Arg
180 185

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<212> DNA
<213> Human

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Thr Asn Leu Lys Thr Asn Asp Asn His Thr Gln His
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cataaggtca tccatactgg agagaagcct tacaaatgta atcaatgtgg caaggtcttc 360

actcagaact cacaccttgc aaatcatcaa aggactcaca ccggagagaa accttaccga 420

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35 40 45

His Thr Gly Glu Lys Pro Tyr Lys Cys His Glu Cys Gly Lys Val Phe
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Arg His Asn Ser Tyr Leu Ala Thr His Arg Arg Ile His Thr Gly Glu
65 70 75 80

Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Met His Ser
85 90 95

Asn Leu Thr Thr His Lys Val Ile His Thr Gly Glu Lys Pro Tyr Lys
100 105 110

Cys Asn Gln Cys Gly Lys Val Phe Thr Gln Asn Ser His Leu Ala Asn
115 120 125

His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Arg Cys Asn Glu Cys
130 135 140

Gly Lys Ala Phe Ser Val Arg Ser Ser Leu Thr Thr His Gln Ala Ile
145 150 155 160

His Thr Gly Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe
165 170 175

Thr Gln Asn Ala His Leu Ala Asn His Arg Arg Ile His Thr Gly Glu
180 185 190

Lys Pro Tyr Arg Cys Thr Glu Cys Gly Lys Ala Phe Arg Val Arg Ser
195 200 205

Ser Leu Thr Thr His Met Ala Ile His Thr Gly Glu Lys Arg Tyr Lys
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Cys Asn Glu Cys Gly Lys Val Phe Arg Gln Ser Ser Asn Leu Ala Ser
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Cys Ala Val Cys Asn Lys Phe Thr Thr Asp Asn Leu Asp Met Leu Gly
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Leu His Met Asn Val Glu Arg Ser Leu Ser Glu Asp Glu Trp Lys Ala
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Val Met Gly Asp Ser Tyr Gln Cys Lys Leu Cys Arg Tyr Asn Thr Gln
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Lys Tyr Gln Leu Val Ala His Ile Lys Glu Gly Gly Lys Ala Asn Glu
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Trp Arg Leu Lys Cys Val Ala Ile Gly Asn Pro Val His Leu Lys Cys
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Asn Ala Cys Asp Tyr Tyr Thr Asn Ser Leu Glu Lys Leu Arg Leu His
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Thr Val Asn Ser Arg His Glu Ala Ser Leu Lys Leu Tyr Lys His Leu
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Gln Gln His Glu Ser Gly Val Glu Gly Glu Ser Cys Tyr Tyr His Cys
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Val Leu Cys Asn Tyr Ser Thr Lys Ala Lys Leu Asn Leu Ile Gln His
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Val Arg Ser Met Lys His Gln Arg Ser Glu Ser Leu Arg Lys Leu Gln
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Arg Leu Gln Lys Gly Leu Pro Glu Glu Asp Glu Asp Leu Gly Gln Ile
210 215 220

Phe Thr Ile Arg Arg Cys Pro Ser Thr Asp Pro Glu Glu Ala Ile Glu
225 230 235 240

Asp Val Glu Gly Pro Ser Glu Thr Ala Ala Asp Pro Glu Glu Leu Ala
245 250 255

Lys Asp Gln Glu Gly Gly Ala Ser Ser Ser Gln Ala Glu Lys Glu Leu
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Thr Asp Ser Pro Ala Thr Ser Lys Arg Ile Ser Phe Pro Gly Ser Ser
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Glu Ser Pro Leu Ser Ser Lys Arg Pro Lys Thr Ala Glu Glu Ile Lys
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Pro Glu Gln Met Tyr Gln Cys Pro Tyr Cys Lys Tyr Ser Asn Ala Asp
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Val Asn Arg Leu Arg Val His Ala Met Thr Gln His Ser Val Gln Pro
325 330 335

Met Leu Arg Cys Pro Leu Cys Gln Asp Met Leu Asn Asn Lys Ile His
340 345 350

Leu Gln Leu His Leu Thr His Leu His Ser Val Ala Pro Asp Cys Val
355 360 365

Glu Lys Leu Ile Met Thr Val Thr Thr Pro Glu Met Val Met Pro Ser
370 375 380

Ser Met Phe Leu Pro Ala Ala Val Pro Asp Arg Asp Gly Asn Ser Asn
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Leu Glu Glu Ala Gly Lys Gln Pro Glu Thr Ser Glu Asp Leu Gly Lys
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Ser Pro Ala Asp Pro Gly Ser Val Arg Glu Asp Ser Gly Phe Ile Cys
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Trp Lys Lys Gly Cys Asn Gln Val Phe Lys Thr Ser Ala Ala Leu Gln
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Asp Arg His Val Tyr Lys Tyr Arg Cys Asn Gln Cys Ser Leu Ala Phe
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Lys Thr Ile Glu Lys Leu Gln Leu His Ser Gln Tyr His Val Ile Arg
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Ala Leu Lys Lys His Leu Glu Thr Ser His Leu Glu Leu Ser Glu Ala
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Ala Met Gly Asp Pro Thr Leu Ala Glu Asp His Thr Ile Ile Val Glu
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Gly Ser Asp Ser Gly Ser Val Gln Glu Asp Ser Gly Ser Glu Pro Lys
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Arg Ala Leu Pro Phe Arg Lys Gly Pro Asn Phe Thr Met Glu Lys Phe
610 615 620

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Thr Gln Lys Asn Ile Leu Leu Val His Tyr Asn Ser Val Ser His Leu
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His Lys Leu Lys Arg Ala Leu Gln Glu Ser Ala Thr Gly Gln Pro Glu
660 665 670

Pro Thr Ser Ser Pro Asp Asn Lys Pro Phe Lys Cys Asn Thr Cys Asn
675 680 685

Val Ala Tyr Ser Gln Ser Ser Thr Leu Glu Ile His Met Arg Ser Val
690 695 700

Leu His Gln Thr Lys Ala Arg Ala Ala Lys Leu Glu Ala Ala Ser Gly
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Ser Ser Asn Gly Thr Gly Asn Ser Ser Ser Ile Ser Leu Ser Ser Ser
725 730 735

Thr Pro Ser Pro Val Ser Thr Ser Gly Ser Asn Thr Phe Thr Thr Ser
740 745 750

Asn Pro Ser Ser Ala Gly Ile Ala Pro Ser Ser Asn Leu Leu Ser Gln
755 760 765

Val Pro Thr Glu Ser Val Gly Met Pro Pro Leu Gly Asn Pro Ile Gly
770 775 780

Ala Asn Ile Ala Ser Pro Ser Glu Pro Lys Glu Ala Asn Arg Lys Lys
785 790 795 800

Leu Ala Asp Met Ile Ala Ser Arg Gln Gln Gln Gln Gln Gln Gln Gln
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His Phe Pro Met Thr Thr Glu Thr Leu Leu Gln Leu Gln Gln Gln Gln
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Pro Glu Val Ser Leu Pro Val Thr Ser Gly Ala Leu Thr Leu Thr Gly
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Gln Gln Ser His Gln Gln Ile Leu Pro Gln Gln Gln Gln Asn Gln Leu
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Ser Ile Ala Gln Ser His Ser Ala Leu Leu Gln Pro Ser Gln His Pro
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Glu Lys Lys Asn Lys Leu Val Ile Lys Glu Lys Glu Lys Glu Ser Gln
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Arg Glu Arg Asp Ser Ala Glu Gly Gly Glu Gly Asn Thr Gly Pro Lys
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Glu Thr Leu Pro Asp Ala Leu Lys  Ala Lys Glu Lys Lys  Glu Leu Ala
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Pro Gly  Gly Gly Ser Glu Pro  Ser Met Leu Pro Pro  Arg Ile Ala
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Ser Asp  Ala Arg Gly Asn Ala  Thr Lys Ala Leu Leu  Glu Asn Phe
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Gly Phe  Glu Leu Val Ile Gln  Tyr Asn Glu Asn Lys  Gln Lys Val
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Gln Lys  Lys Asn Gly Lys Thr  Asp Gln Gly Glu Asn  Leu Glu Lys
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Leu Glu  Cys Asp Ser Cys Gly  Lys Leu Phe Ser Asn  Ile Leu Ile
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Leu Lys  Ser His Gln Glu His  Val His Gln Asn Tyr  Phe Pro Phe
    1085                1090                1095

Lys Gln  Leu Glu Arg Phe Ala  Lys Gln Tyr Arg Asp  His Tyr Asp
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Lys Leu  Tyr Pro Leu Arg Pro  Gln Thr Pro Glu Pro  Pro Pro Pro
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Pro Pro  Pro Pro Pro Pro Pro  Pro Leu Pro Ala Ala  Pro Pro Gln
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Pro Ala  Ser Thr Pro Ala Ile  Pro Ala Ser Ala Pro  Pro Ile Thr
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Ser Pro  Thr Ile Ala Pro Ala  Gln Pro Ser Val Pro  Leu Thr Gln
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Leu Ser  Met Pro Met Glu Leu  Pro Ile Phe Ser Pro  Leu Met Met
    1175                1180                1185

Gln Thr  Met Pro Leu Gln Thr  Leu Pro Ala Gln Leu  Pro Pro Gln
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Leu Gly  Pro Val Glu Pro Leu  Pro Ala Asp Leu Ala  Gln Leu Tyr
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Gln His  Gln Leu Asn Pro Thr  Leu Leu Gln Gln Gln  Asn Lys Arg
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Pro Arg  Thr Arg Ile Thr Asp  Asp Gln Leu Arg Val  Leu Arg Gln
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Tyr Phe  Asp Ile Asn Asn Ser  Pro Ser Glu Glu Gln  Ile Lys Glu
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Met Ala  Asp Lys Ser Gly Leu  Pro Gln Lys Val Ile  Lys His Trp
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Phe Arg  Asn Thr Leu Phe Lys  Glu Arg Gln Arg Asn  Lys Asp Ser
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Pro Tyr  Asn Phe Ser Asn Pro  Pro Ile Thr Ser Leu  Glu Glu Leu
    1295                 1300                 1305

Lys Ile  Asp Ser Arg Pro Pro  Ser Pro Glu Pro Pro  Lys Gln Glu
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Tyr Trp  Gly Ser Lys Arg Ser  Ser Arg Thr Arg Phe  Thr Asp Tyr
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Gln Leu  Arg Val Leu Gln Asp  Phe Phe Asp Ala Asn  Ala Tyr Pro
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Lys Asp  Asp Glu Phe Glu Gln  Leu Ser Asn Leu Leu  Asn Leu Pro
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Thr Arg  Val Ile Val Val Trp  Phe Gln Asn Ala Arg  Gln Lys Ala
    1370                 1375                 1380

Arg Lys  Asn Tyr Glu Asn Gln  Gly Glu Gly Lys Asp  Gly Glu Arg
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Arg Glu  Leu Thr Asn Asp Arg  Tyr Ile Arg Thr Ser  Asn Leu Asn
    1400                 1405                 1410

Tyr Gln  Cys Lys Lys Cys Ser  Leu Val Phe Gln Arg  Ile Phe Asp
    1415                 1420                 1425

Leu Ile  Lys His Gln Lys Lys  Leu Cys Tyr Lys Asp  Glu Asp Glu
    1430                 1435                 1440

Glu Gly  Gln Asp Asp Ser Gln  Asn Glu Asp Ser Met  Asp Ala Met
    1445                 1450                 1455

Glu Ile  Leu Thr Pro Thr Ser  Ser Ser Cys Ser Thr  Pro Met Pro
    1460                 1465                 1470

Ser Gln  Ala Tyr Ser Ala Pro  Ala Pro Ser Ala Asn  Asn Thr Ala
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Ser Ser  Ala Phe Leu Gln Leu  Thr Ala Glu Ala Glu  Glu Leu Ala
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Thr Phe  Asn Ser Lys Thr Glu  Ala Gly Asp Glu Lys  Pro Lys Leu
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Ala Glu  Ala Pro Ser Ala Gln  Pro Asn Gln Thr Gln  Glu Lys Gln
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Gly Gln  Pro Lys Pro Glu Leu  Gln Gln Gln Glu Gln  Pro Glu Gln
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Lys Thr Asn Thr Pro Gln Gln Lys Leu Pro Gln Leu Val Ser Leu
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Pro Leu Pro Gln Ser Ser Pro Ser Pro Ser Gln Leu Ser His Leu
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Pro Leu Lys Pro Leu His Thr Ser Thr Pro Gln Gln Leu Ala Asn
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Leu Pro Pro Gln Leu Ile Pro Tyr Gln Cys Asp Gln Cys Lys Leu
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Ala Phe Pro Ser Phe Glu His Trp Gln Glu His Gln Gln Leu His
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Phe Leu Ser Ala Gln Asn Gln Phe Ile His Pro Gln Phe Leu Asp
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Arg Ser Leu Asp Met Pro Phe Met Leu Phe Asp Pro Ser Asn Pro
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Leu Leu Ala Ser Gln Leu Leu Ser Gly Ala Ile Pro Gln Ile Pro
1670 1675 1680

Ala Ser Ser Ala Thr Ser Pro Ser Thr Pro Thr Ser Thr Met Asn
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Thr Leu Lys Arg Lys Leu Glu Glu Lys Ala Ser Ala Ser Pro Gly
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Glu Asn Asp Ser Gly Thr Gly Gly Glu Glu Pro Gln Arg Asp Lys
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Arg Leu Arg Thr Thr Ile Thr Pro Glu Gln Leu Glu Ile Leu Tyr
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Gln Lys Tyr Leu Leu Asp Ser Asn Pro Thr Arg Lys Met Leu Asp
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His Ile Ala His Glu Val Gly Leu Lys Lys Arg Val Val Gln Val
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Trp Phe Gln Asn Thr Arg Ala Arg Glu Arg Lys Gly Gln Phe Arg
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Ala Val Gly Pro Ala Gln Ala His Arg Arg Cys Pro Phe Cys Arg
1790 1795 1800

Ala Leu Phe Lys Ala Lys Thr Ala Leu Glu Ala His Ile Arg Ser
1805 1810 1815

Arg His Trp His Glu Ala Lys Arg Ala Gly Tyr Asn Leu Thr Leu
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Ser Ala Met Leu Leu Asp Cys Asp Gly Gly Leu Gln Met Lys Gly
1835 1840 1845

Asp Ile Phe Asp Gly Thr Ser Phe Ser His Leu Pro Pro Ser Ser
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Ser Asp  Gly Gln Gly Val Pro  Leu Ser Pro Val Ser  Lys Thr Met
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Glu Leu  Ser Pro Arg Thr Leu  Leu Ser Pro Ser Ser  Ile Lys Val
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Glu Gly  Ile Glu Asp Phe Glu  Ser Pro Ser Met Ser  Ser Val Asn
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Leu Asn  Phe Asp Gln Thr Lys  Leu Asp Asn Asp Asp  Cys Ser Ser
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Val Asn  Thr Ala Ile Thr Asp  Thr Thr Thr Gly Asp  Glu Gly Asn
    1925                 1930                 1935

Ala Asp  Asn Asp Ser Ala Thr  Gly Ile Ala Thr Glu  Thr Lys Ser
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Ser Ser  Ala Pro Asn Glu Gly  Leu Thr Lys Ala Ala  Met Met Ala
    1955                 1960                 1965

Met Ser  Glu Tyr Glu Asp Arg  Leu Ser Ser Gly Leu  Val Ser Pro
    1970                 1975                 1980

Ala Pro  Ser Phe Tyr Ser Lys  Glu Tyr Asp Asn Glu  Gly Thr Val
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Asp Tyr  Ser Glu Thr Ser Ser  Leu Ala Asp Pro Cys  Ser Pro Ser
    2000                 2005                 2010

Pro Gly  Ala Ser Gly Ser Ala  Gly Lys Ser Gly Asp  Ser Gly Asp
    2015                 2020                 2025

Arg Pro  Gly Gln Lys Arg Phe  Arg Thr Gln Met Thr  Asn Leu Gln
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Leu Lys  Val Leu Lys Ser Cys  Phe Asn Asp Tyr Arg  Thr Pro Thr
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Met Leu  Glu Cys Glu Val Leu  Gly Asn Asp Ile Gly  Leu Pro Lys
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Arg Val  Val Gln Val Trp Phe  Gln Asn Ala Arg Ala  Lys Glu Lys
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Lys Ser  Lys Leu Ser Met Ala  Lys His Phe Gly Ile  Asn Gln Thr
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Ser Tyr  Glu Gly Pro Lys Thr  Glu Cys Thr Leu Cys  Gly Ile Lys
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Tyr Ser  Ala Arg Leu Ser Val  Arg Asp His Ile Phe  Ser Gln Gln
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His Ile  Ser Lys Val Lys Asp  Thr Ile Gly Ser Gln  Leu Asp Lys
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Glu Lys  Glu Tyr Phe Asp Pro  Ala Thr Val Arg Gln  Leu Met Ala
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Gln Gln  Glu Leu Asp Arg Ile  Lys Lys Ala Asn Glu  Val Leu Gly
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Gly Leu Pro Asn Lys Pro Ser Ser Ala Ser Leu Ser Ser Pro Thr
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Pro Pro Ala Ala Gln Pro Pro Pro Thr Pro Gln Leu Pro Leu Gln
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Gln Gln Gln Gln Arg Lys Asp Lys Asp Ser Glu Lys Val Lys Glu
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Lys Glu Lys Ala His Lys Gly Lys Gly Glu Pro Leu Pro Val Pro
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Lys Lys Glu Lys Gly Glu Ala Pro Thr Ala Thr Ala Ala Thr Ile
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Gln Tyr Gln Gln Tyr Gln Gln Ser Leu Gln Glu Ala Ile Gln Gln
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Thr Pro Val Pro Pro Gly Ala Pro Ser Pro Asp Lys Asp Pro Ala
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Val Ser  Pro Leu Leu Pro Lys  Leu Pro Glu Glu Pro  Glu Ala Glu
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Ser Lys  Ser Ala Asp Ser Leu  Tyr Asp Pro Phe Ile  Val Pro Lys
    2525                 2530                 2535

Val Gln  Tyr Lys Leu Val Cys  Arg Lys Cys Gln Ala  Gly Phe Ser
    2540                 2545                 2550

Asp Glu  Glu Ala Ala Arg Ser  His Leu Lys Ser Leu  Cys Phe Phe
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Gly Gln  Ser Val Val Asn Leu  Gln Glu Met Val Leu  His Val Pro
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Thr Gly  Gly Gly Gly Gly Gly  Ser Gly Gly Gly Gly  Gly Gly Gly
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Gly Gly  Gly Gly Gly Gly Gly  Gly Gly Ser Tyr His  Cys Leu Ala
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Cys Glu  Ser Ala Leu Cys Gly  Glu Glu Ala Leu Ser  Gln His Leu
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Glu Ser  Ala Leu His Lys His  Arg Thr Ile Thr Arg  Ala Ala Arg
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Asn Ala  Lys Glu His Pro Ser  Leu Leu Pro His Ser  Ala Cys Phe
    2645                 2650                 2655

Pro Asp  Pro Ser Thr Ala Ser  Thr Ser Gln Ser Ala  Ala His Ser
    2660                 2665                 2670

Asn Asp  Ser Pro Pro Pro Pro  Ser Ala Ala Ala Pro  Ser Ser Ala
    2675                 2680                 2685

Ser Pro  His Ala Ser Arg Lys  Ser Trp Pro Gln Val  Val Ser Arg
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Ala Ser  Ala Ala Lys Pro Pro  Ser Phe Pro Pro Leu  Ser Ser Ser
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Ser Thr  Val Thr Ser Ser Ser  Cys Ser Thr Ser Gly  Val Gln Pro
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Ser Met  Pro Thr Asp Asp Tyr  Ser Glu Glu Ser Asp  Thr Asp Leu
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Ser Gln  Lys Ser Asp Gly Pro  Ala Ser Pro Val Glu  Gly Pro Lys
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